Special Issue

Advance in Bayesian Inference and High-Dimensional Data Analysis

Message from the Guest Editors

We are pleased to announce a Special Issue on "Advance in Bayesian Inference and High-Dimensional Data Analysis." With the rapid development of computing facilities, Bayesian inference has emerged as a powerful framework for addressing complex statistical challenges, particularly in the context of high-dimensional data from diverse fields such as genomics, neuroscience, machine learning, and social science. As modern scientific and technological applications increasingly generate massive datasets, new Bayesian methods have been developed to enhance scalability, improve model selection, and ensure reliable inference. This Special Issue will present a collection of the latest developments on the following topics, including but not limited to:

- Bayesian statistical modeling;
- Prior specification and elicitation;
- Bayesian hypothesis testing and variable selection;
- Markov Chain Monte Carlo (MCMC) and variational algorithms;
- Bayesian applications in different fields.

Guest Editors

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Message from the Editor-in-Chief

The journal *Mathematics* publishes high-quality, refereed papers that treat both pure and applied mathematics. The journal highlights articles devoted to the mathematical treatment of questions arising in physics, chemistry, biology, statistics, finance, computer science, engineering and sociology, particularly those that stress analytical/algebraic aspects and novel problems and their solutions. One of the missions of the journal is to serve mathematicians and scientists through the prompt publication of significant advances in any branch of science and technology, and to provide a forum for the discussion of new scientific developments.

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